

AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently amended) A heat-treated elongate member, comprising:
a composite elongate core;
the composite elongate core including an inner core formed having a proximal section and distal section, each section formed in part of a precipitation hardened material and a layer formed in part of a superelastic material;
a flexible body disposed at a distal end of the distal section;
wherein the precipitation hardened material and superelastic material extend from the proximal section to at least substantially in a diametrical direction underneath the flexible bodylayer is arranged concentrically about the inner core.
2. (Original) The elongate member of claim 1 wherein the composite elongate core has a modulus of elasticity of at least 9×10^6 psi.
3. (Original) The elongate member of claim 2 wherein the modulus of elasticity is at least 12×10^6 psi.
4. (Original) The elongate member of claim 3 wherein the modulus of elasticity is at least 15×10^6 psi.
5. (Original) The elongate member of claim 1 wherein the composite elongate core has an ultimate tensile strength of at least 150 ksi.
6. (Original) The elongate member of claim 5 wherein the ultimate tensile strength is at least 180 ksi.

7. (Original) The elongate member of claim 6 wherein the ultimate tensile strength is at least 200 ksi.

8. (Currently amended) A heat-treated elongate member, comprising:

a composite elongate core;

the composite elongate core including an inner core formed of a precipitation hardened material concentrically surrounded by a first layer formed of a superelastic material and having a proximal section and distal section, each section formed in part of a precipitation hardened material and in part of a superelastic material;

a flexible body at least partially overlying the distal section;

~~the precipitation hardened material and superelastic material extending from the proximal section to substantially diametrically and coaxially underneath the flexible body;~~ and

wherein the precipitation hardenable material comprises at least two materials selected from the group consisting of nickel, cobalt, molybdenum, chromium, tungsten, and iron.

9. (Currently amended) The elongate member of claim [[8]]1 wherein the precipitation hardenable material is precipitation hardenable stainless steel.

10. (Original) The elongate member of claim 9 wherein the precipitation hardenable material is chromium-nickel based single stage martensitic precipitation hardenable stainless steel.

11. (Original) The elongate member of claim 9 wherein the precipitation hardenable stainless steel is essentially nickel free.

12. (Original) The elongate member of claim 9 wherein the precipitation hardenable stainless steel includes less than about 1% nickel.

13. (Original) The elongate member of claim 8 wherein the precipitation hardenable material is a cobalt based precipitation hardenable alloy.

14. (Original) The elongate member of claim 13 wherein the cobalt based alloy further includes nickel, molybdenum and chromium.

15. (Original) The elongate member of claim 14 wherein the alloy further includes less than about 10% by wt. iron.

16. (Cancel)

17. (Currently amended) The elongate member of claim [[16]]8 wherein the inner core ~~element~~ and the first layer ~~portion~~ are independently formed ~~from superelastic NITINOL and precipitation hardenable material~~.

18. (Cancel)

19. (Currently amended) The elongate member of claim 17 wherein the first layer ~~portion~~ is formed from superelastic NITINOL.

20. (Currently amended) The elongate member of claim 19 wherein the composite elongate core further includes a second layer ~~portion~~ disposed at least in part concentrically about the first layer ~~portion~~ and formed from a material similar to the inner core ~~element~~ material.

21. (Currently amended) The elongate member of claim [[18]]8 wherein the composite elongate core further includes a second layer portion disposed at least in part about the first layer portion and formed from a material similar to core element material.

22. (Currently amended) The elongate member of claim [[18]]8 wherein the elongate member is a guidewire.

23. (Original) The elongate member of claim 22 wherein the composite elongate core includes a distal segment having a distally tapered section with proximal and distal portions, and a distal flexible section, the inner core element being at least partially exposed at the distal flexible section of the distal segment of the composite elongate member.

24. (Original) The elongate member of claim 19 wherein the elongate member is a guidewire.

25. (Original) The elongate member of 24 wherein the composite elongate core includes a distal segment having a distally tapered section with proximal and distal portions, and

a distal flexible section, the inner core element being at least partially exposed at the distal flexible section of the distal segment of the composite elongate member, and the first layer portion being at least substantially exposed at the proximal portion of the distally tapered section of the distal segment of the composite elongate core.

26. (Currently amended) A guide wire, comprising:

a composite elongate core;

the composite elongate core including an inner core formed of a precipitation hardened material concentrically surrounded by a layer formed of a superelastic material and having a proximal section and distal section, each section formed in part of a precipitation hardened material and in part of a superelastic material;

a flexible coil disposed at a distal end of the distal section;

wherein the precipitation hardened material and superelastic material extend from the proximal section to at least through a part of a length of substantially coaxially underneath in a diametrical direction relative to the flexible coil.

27. (Currently amended) A heat-treated elongate member, comprising:

a composite elongate core;

the composite elongate core including an inner core formed of a precipitation hardened material concentrically surrounded by a layer formed of a superelastic material and having a proximal section and distal section, each section formed in part of a precipitation hardened material and in part of a superelastic material;

a flexible body disposed at a distal end of the distal section;

the distal section having a proximal portion and a tapered distal portion; and

wherein the precipitation hardened material and superelastic material extend from the proximal section of the elongate core to the tapered distal portion of the distal section of the elongate core and continuing through at least a part of a length of to substantially in a diametrical direction and coaxially underneath the flexible body.

28. (New) The heat-treated elongate member of claim 1, further comprising a second layer concentrically arranged about the layer formed of the superelastic material.

29. (New) The heat-treated elongate member of claim 28, wherein the second layer is formed of the precipitation hardened material.